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## **ABSTRACT**

Methods and apparatus for executing a lighting program to control a plurality of light emitting diodes (LEDs) in response to at least one characteristic of an audio input. In one embodiment, the audio input is digitally processed to determine the at least one characteristic. In other embodiments, control signals for the LEDs are generated in response to a timer and/or input from a user interface, as well as in response to the at least one characteristic of the audio input. In another embodiment, the control signals for the LEDs are generated by a same computer that processes the audio input to transmit signals to speakers to audibly play the audio input. In a further embodiment, a GUI is provided to assist in authoring the lighting program. In another embodiment, the audio signal is processed before being played back. In a further embodiment, the lighting program anticipates changes in the audio input.